



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.                             | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/709,148                                  | 04/16/2004  | Brian L. Ott         | ITW7510.080         | 3147             |
| 33647                                       | 7590        | 09/07/2006           | EXAMINER            |                  |
| ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ITW) |             |                      | SHAW, CLIFFORD C    |                  |
| 14135 NORTH CEDARBURG ROAD                  |             |                      | ART UNIT            |                  |
| MEQUON, WI 53097                            |             |                      | PAPER NUMBER        |                  |

1725

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/709,148

Applicant(s)

OTT, BRIAN L.

Examiner

Clifford C. Shaw

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24 is/are allowed.
- 6) ☒ Claim(s) 1,8,11,12,17-19 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 2-7,9,10,13-16 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

**Detailed Action**

1.) The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2.) Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Oestreicher (2,617,913). Figure 1 and the discussion thereof at columns 2-3 in the patent to Oestreicher (2,617,913) disclose a welding system with features claimed, including: a power source with a primary contactor associated with element 24 and a secondary contactor associated with element 16; a weld cable 10 connecting the power source to a remote device 11; and a controller including elements 11 and 7 that regulates the activation of the first and second contactors to switch between standby mode and welding mode. In regard to claim 8, the contact of element 11 with element 7 provides a modulated signal to initiate welding.

3.) Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Hsien (5,276,305, cited by applicant). The patent to Hsien (5,276,305) discloses a method of remotely controlling a power source 12 with the steps claimed, including: packaging feedback of commands into a data packet as shown in figures 2 and 3; transmitting the data packet from remote device 31 and 3 across weld cable 2, 5 to controller 13, as claimed.

4.) Claims 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsien (5,276,305). The patent to Hsien (5,276,305) discloses the subject matter claimed except

Art Unit: 1725

for explicit mention of multiple data packets as in claim 19 and except for transmitting during an active welding operation as in claim 23. These differences do not patentably distinguish over the patent. It is considered obvious that in use, multiple adjustments of the power supply would be made, depending on the requirements of a particular welding job, satisfying the claim language calling for multiple data packets in claim 19. In regard to claim 23, the control system of Hsien (5,276,305) is designed to operate independently of the welding power system (i.e., the control signals are high frequency signals capacitively coupled to the welding cable). It is considered obvious that the signals of Hsien (5,276,305) be transmitted at any phase of a welding operation, including "during" the operation, the motivation being to adjust the power supply of Hsien (5,276,305) during a particular welding job.

5.) Claims 11, 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oestreicher (2,617,913) as applied to claims 1 and 8 above, and further in view of Toth (4,079,231). It would have been obvious to have used the system of Oestreicher (2,617,913) to control any conventional remote welding device, including one with a wire feeder, the motivation being the teachings of Toth (4,079,231) that a wire feeder can be controlled by a system sensitive to a modulated low voltage standby mode (see figure 1 in Toth (4,079,231) and note wire feed system at 14 controlled by elements 28 and 36).

6.) Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsien (5,276,305) as applied to claim 18 above, and further in view of Zucker et al. (6,906,285, cited by applicant). It would be obvious to use the system of Hsien (5,276,305) to control any

Art Unit: 1725

conventional welding setup, including one with a wire feeder as claimed, the motivation being the teachings of Zucker et al. (6,906,285) that it is conventional to remotely control a wire feeder powered by the welding power supply (see elements 10, 50, and the wire feed motor "M" in Zucker et al. (6,906,285)).

7.) Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsien (5,276,305) as applied to claim 18 above, and further in view of the Intellon white paper no. 0027 (cited by applicant). The only aspect of the claim to which the rejection above does not apply is the provision for a particular format for the data packet. This difference does not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have used a data format in Hsien (5,276,305) with the features claimed, the motivation being the teachings of the Intellon white paper no. 0027 that such is useful for transmitting control data over a power line (see the discussion of preamble, data, and CRC on pages 3-5 of the Intellon white paper no. 0027).

8.) Claims 2-7, 9, 10, 13-16, and 20 are objected to for depending from rejected claims, but would be given favorable consideration if recast in independent form to include all of the limitations of the parent claims. None of the prior art of record teaches or suggests a welding system with all the claim features of claim 2, particularly the specific manner of powering the wire feeder electronics in standby mode as set forth in the claim. None of the prior art of record teaches or suggests a welding system with all of the features of claim 9, and specifically the particular data packet combined with the other claim features. None of the prior art of record

Art Unit: 1725

teaches or suggests the welding system with all of the features of claim 13, particularly the limitations directed to the battery as set forth in the claim. None of the prior art of record teaches or suggests the method of claim 20, particularly the step of powering the electronics of the remote device in standby mode as set forth in the claim. The other claims are deemed to contain patentable subject matter at least because they depend from one of claims 2 or 13.

9.) Claim 24 is allowable over the prior art of record. None of the prior art of record teaches or suggests the claimed method, particularly the step of powering the electronics of the remote device in standby mode as set forth in the claim.

10.) Applicant's arguments filed 6/21/2006 have been fully considered but they are not persuasive. Applicant argues against the rejections based on Oestreicher by noting that "Examiner has identified the same component of Oestreicher as constituting two distinct claimed elements: both a remote device and a controller" ("Remarks", page 7 of the 6/21/2006 amendment). This argument is not persuasive. The claims do not specify that the remote device and the controller are separate and distinct. Clearly, the element 11 in Oestreicher is both a remote welding electrode device and also performs a control function, satisfying the claim language as indicated in the rejections. Applicant further argues against the rejections based on Oestreicher, urging that the system of Oestreicher does not include a "modulated" signal or does not include the receipt of commands as specified in the claims. Examiner does not agree. The control current in lines 8 and 10 of Oestreicher is clearly varied, i.e., modulated, by the contact of 11 with 7. This deliberate variation clearly constitutes a command. Applicant argues against the

Art Unit: 1725

rejections based on Hsien, urging that “Hsien requires that the analog transmission occur when a DC welding voltage for a welding operation exists on the welding wire, but the present invention does not” ”(“Remarks”, page 8 of the 6/21/2006 amendment). Examiner does not agree with applicant’s interpretation of Hsien. There is no requirement in Hsien that the control circuit is operational only during the period of time that the welding wire is energized by welding current, as applicant suggests. The circuitry of Hsien is clearly able to operate either with or without full welding power on the cables 2 and 5. The capacitor 38 that applicant mentions is an isolation capacitor whose clear function is to prevent welding current from flowing in the control circuitry.

11.) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1725

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clifford C Shaw  
Primary Examiner  
Art Unit 1725

September 3, 2006